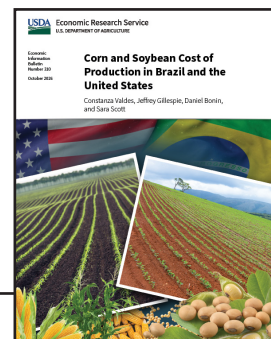




A report summary from the Economic Research Service

Corn and Soybean Cost of Production in Brazil and the United States

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Key Points

- Brazil has emerged as a major competitor to the United States in global corn and soybean markets.
- Estimates suggest:
 - Brazil's farmers face lower per acre corn and soybean costs than farmers in the United States because of factors including lower land costs, benefits from double cropping, and lower seed costs.
 - U.S. total corn costs per bushel exceed those of Brazil's Mato Grosso State but are similar to Brazil's national per bushel costs.
 - The United States has lower operating costs per acre and per bushel for soybeans, but higher total costs compared to Brazil.
 - For corn, Brazil's Mato Grosso State has a higher return over total economic cost than the U.S. Heartland region, while the two areas have similar returns over operating cost. However, at the national level, the United States has higher returns than Brazil both over operating cost and total economic cost.
 - For soybeans, Brazil has a higher national average return over total economic cost than the United States, whereas the United States has a higher national average return over operating cost than Brazil.

Why Does This Matter?

Brazil and the United States collectively dominate global markets for soybeans and corn, jointly supplying nearly 83 and 58 percent of exports in marketing year 2025/26, respectively. Over the last 20 years, Brazil has emerged as a major competitor for the United States, concurrent with Brazil's expanded adoption of genetically engineered (GE) corn and soybean seeds, widespread use of double cropping systems, and farmer returns that have supported increased production. As a result, Brazil's agricultural sector has experienced significant growth, with exports of corn and soybeans reaching new highs. Comparing

differences in the costs of production faced by farmers in Brazil and the United States provides insight into sources of competitive advantages in both soybean and corn markets. Using official Government data, this report explores how cost categories such as seed, fertilizer, hired labor, taxes and insurance, and others compare across the two countries. As part of the comparative framework, this report looks at costs on a per acre (per hectare) and a per bushel (per ton) of production basis, underscoring how yield and production system differences in the United States and Brazil affect relative farmer returns.

A Few More Details

The Governments of the United States and Brazil survey corn and soybean farmers extensively and publicly report official data on costs and returns at national and regional levels. This allows for comparison of the major corn and soybean production zones in both countries. For the United States, this is the Heartland region. For Brazil, this is Mato Grosso—the principal State producing second-crop corn (also known as safrinha) and soybeans. Estimates for the United States are based on data collected via the USDA's Agricultural Resources Management Survey (ARMS). For Brazil, estimates are based on annual production costs, returns, and price data for inputs and services collected via Brazil's National Supply Company survey.

Cost comparisons are made for a variety of categories and sub-categories, including total costs (sum of operating costs and allocated overhead costs), operating costs (mostly cash costs), and allocated overhead costs. To reduce variability, soybean and corn costs are compared using 3-year averages for 2023–25. Brazil costs are arranged to fit the U.S. structure, recognizing distinctions in measurement for some items (e.g., capital recovery of machinery and equipment, land, taxes). Direct Government payments are not included in the estimates.

Differences in production practices, access to capital, and the evolving use of technology influence both the per acre and per bushel cost estimates. For example, while farmers in both countries use GE seeds, corn yields in the United States are nearly double those realized by farmers in Brazil, leading to lower per bushel costs for some cost categories. Safrinha corn grown in Brazil following the soybean harvest benefits from soybeans' nitrogen-fixing abilities, reducing fertilizer demand and associated costs in corn production. In contrast, much of Brazil's soybeans are grown in the Cerrado region, which is characterized by heavily weathered tropical soils that require relatively more fertilizer, incurring higher per acre and per bushel fertilizer costs as compared to soybeans grown in the United States.

Estimates from this study indicate:

- Between 2023 and 2025, the total costs per acre to produce soybeans in the United States were \$656.16, with the U.S. Heartland averaging about 6.5 percent higher than the national average.
- Total costs per acre to produce soybeans in Brazil were \$558.97, with Mato Grosso averaging about 3.6 percent below the national average.
- Total costs per acre to produce corn in the U.S. Heartland were \$951.82 per acre, compared to \$420.57 per acre for Brazil's Mato Grosso.
- Brazil has generally lower allocated overhead costs, primarily for land; this is aided by widespread practices of double cropping.
- Operating costs are higher in Brazil compared to the United States for soybeans, accounting for 63 percent of total costs in Mato Grosso. The largest components of operating costs in Brazil are fertilizers (35 percent), chemicals (34 percent), and seeds (13 percent). In comparison, in the U.S. Heartland these components and their percentages of operating costs are fertilizers (23 percent), chemicals (22 percent), and seeds (25 percent).
- Brazil benefits from double cropping—a practice that allows farmers to grow two crops on the same land within the same year—and currency devaluation, both of which boost net returns.
- Brazil's inland soybean transportation cost from market of first sale to port does not differ greatly than that of the United States.
- Road infrastructure developments to northern ports in Brazil have lowered shipping costs compared to southern ports.

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